

## **PROTECTIVE CASUAL FOOTWEAR SUITABLE AS A SLIPPER**

### **FIELD OF THE INVENTION**

The intervention relates to footwear, particularly footwear which is suitable  
5 for use as a household slipper.

### **BACKGROUND OF THE INVENTION**

Among of the more popular forms of casual footwear are as bedroom  
slippers. Such footwear has a primary purpose of keeping the feet warm. Typically,  
household slippers offer only minimal protection to a person's foot, as they are  
10 principally only for walking about the bedroom or the home. Such footwear is  
rarely used outside of the house or home. Accordingly, such slippers are normally  
made of lightweight material which does not protect the feet from hazards such as  
stubbing of the toe. Additionally, such footwear does not include additional or other  
significant support for the arches of the foot.

15 United States Published Patent Application Number US 2002/0007568 A1,  
authored by Kellerman and published on January 24, 2002, describes an insole to  
afford cushioning for shoes. Such insole is meant to be placed and secured within  
shoes and affords cushioning for the sides of the feet and heels. The invention of  
Kellerman comprises a separate appliance from the shoe itself and does not afford  
20 protection to the top of a foot. It is principally an orthopaedic devise for use with  
a casual , or other, shoe. It could be used with a household slipper, but does not

appear practical for such use.

United States. Patent Number 4, 317, 292, issued to Melton on March 2, 1982, describes an improved slipper sock. Such includes an additional sock layer to provide some protection to the bottom of the foot and is fastened to a sock, or perhaps a shoe, by means of an adhesive. The invention taught in Melton is not suitable for use outside the immediate home and the protection afforded to the foot does not protect against stubs or collisions with door jams, table and chair legs, falling objects, or the like.

United States Patent Number 5,384,970, additionally issued to Melton on January 31, 1995, describes an item of footwear which can readily be adjusted in size for a snug fit. While such is suitable for use as a slipper and provides some additional degree of protection, it should be noted that this invention was not designed for protection but was designed to provide an adjustable slipper to facilitate a more comfortable fit or to permit its use by persons with different foot sizes.

United States Patent Number 5,617,585, issued to Fons et al. on April 8, 1997, provides a slipper adapted with a rubber sole lining. It would appear that the purpose of this invention is to provide an added measure of protection from moisture and keep the foot dry. It does not afford protection from collisions or potential contact injuries. It also does not teach any comfort or convenience features.

United States Patent Number 6,065,229, issued to Wahrheit on May 23, 2000 comprises a multiple part soft support sole. It would appear that the principles of Wahrheit might be adaptable for use with a slipper since the apparatus does not afford a substantial measure of comfort. It does not offer protection to the top or sides of the foot. The sole appears designed to deal solely with the fit and comfort of the footwear and not for the purpose of providing protection.

United States Patent Application Publication Number US 2001/00349 56 A1, published by Mawusi et al. on November 1, 2001, describes an orthopedic slipper intended for use by those to afford a measure of comfort with bunions or other foot mild maladies. It does not protect from outside hazards.

What is needed, but not provided in the prior art, is an item of footwear, suitable for use as a slipper, which will afford an increased amount of protection to the foot from household hazards. This may include stubbing of the toe, ankle, or heel against table and chair legs and doorsteps and door jams. This may also include protection of the top of the foot from household objects which are dropped, such as beverage or food cans, glasses and dishware, books, ashtrays, and the like. It would be helpful to have such a variety of footwear within the comfort of a slipper and along with enhanced protection for the foot.

### **SUMMARY OF THE INVENTION**

The inventor has provided a house slipper which is both protective and

comfortable. Such house slipper is also simple to put on and take off and may have an appearance appropriate for household attire. It may have a texture, weight, and appearance similar to a typical household slipper.

This has been accomplished by adapting a standard slipper with compartments through which layers of lightweight protective material may be inserted. In particular, the toe and areas of the slipper typically associated with stubs would be so protected. The protection could be provided by either a solid, or semi-rigid plastic or other material or by a baffled material. The slipper may also be adapted with holes for ventilation. The compartment and slipper shell may be defined by an inner soft, or gel-like fabric for a snug fit and an outer fabric to give an attractive appearance.

The slipper may also be adapted with an enlarged sole. This allows protection from inadvertent stubs of the toe, heel, or ankle while walking about the house or wherever one may wear the slipper, including the garage or the immediate outside vicinity of the house. Additionally, the slipper may be adapted with a heel grip to ensure that it remains on the foot. Finally, the invention may be adapted with an enhances arch support structure for the purpose of providing additional comfort and utility.

It is, then, an advantage of the present invention to provide a flexible and lightweight item of footwear which is both comfortable and offers a measure of

protection for the foot.

It is a further object of the present invention to provide such an item of footwear which guards against the stubbing of the toe, heel, or ankle.

5 It is a further object of the present invention to provide such an item of footwear which affords a measure of protection from household objects which may fall on a person's foot.

It is a further object of the present invention to provide such an item of footwear which may be adapted with an arch support.

10 It is a further object of the invention to provide such an item of footwear which affords comfort equivalent to that of a standard house slipper.

It is a further object of the present invention to provide such an item of footwear which is attractive while providing both comfort and safety.

Other features and advantages of the present invention will be apparent from the following description in which the preferred embodiments have been set forth  
15 in conjunction with the accompanying drawings.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

In describing the preferred embodiments of the invention reference will be made to the series of figures and drawings briefly described below.

20 Figure 1 is a cross-sectional side of view of the slipper indicating the basic components of the slipper as well as the compartments for protective materials.

The foot is depicted in the slipper and a small arch supporting portion is depicted.

Figure 2 is another cross-sectional side view with the foot removed from the slipper so that the ventilation holes may be seen along the sole.

5        Figure 3 is an oblique view of the slipper depicting the enlarged sole.

Figure 4 as a front view of the slipper.

Figure 5 is a top view of the slipper.

Figure 6 is a rear view of the slipper.

Figure 7 is a side view of the slipper.

10       Figure 8 is a cross section view of a protective toe layer which includes air pockets.

Figure 9 depicts how air pockets could also be used for the sole of the slipper.

Figure 10 depicts how the sole could be further adapted with a heel guard.

While certain drawings have been provided in order to teach the principles  
15       and operation of the present invention, it should be understood that, in the detailed  
description which follows, reference may be made to components or apparatus  
which are not included in the drawings. Such components and apparatus should be  
considered as part of the description, even if not included in such a drawing.  
Likewise, the drawings may include an element, structure, or mechanism which is  
20       not described in the textual description of the invention which follows. The

invention and description should also be understood to include such a mechanism, component, or element which is depicted in the drawing but not specifically described.

## **DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT**

5           Reference will now be made in detail to the present preferred embodiment of the invention, an example of which is illustrated in the accompanying drawings. While the invention will be described in connection with a preferred embodiment, it will be understood that it is not intended to limit the invention to that embodiment. On the contrary, it is intended to cover all alternatives, modifications, and  
10           equivalents as may be included within the spirit and scope of the invention defined in the appended claims.

          Making reference first to Figure 1, it can be seen that the slipper (100) comprises the following primary elements. It includes a sole (110) which may be made more substantial constructed than that of a typical household slipper. As will  
15           be more apparent in Figure 3, the sole (110) protrudes out from all sides (101, 102, 103, 104) of the slipper (100). The back (103) of the slipper (100) may comprise a semi rigid material (121) with a gentle grip section (122) at the top (123) in order to keep the foot (105) more securely held within the slipper (100). At the front (101) of the slipper (100) and along all sides (101, 102, 104) of the slipper (100) at  
20           the front PORTION (106) is a defined compartment (130), within which may be

placed a protective rigid, or semi-rigid material (131). Such material (131) should be lightweight and is adapted to define or conform to the shape of the front shell (107) of the slipper (100). This material should be of sufficient substance to cushion or absorb energy from the dropping of typical household items on the foot, such as a can of food or beverages, a glass or, or an item of silverware. Other items which may be protected against front this might be a book, a small item of furniture, or tools, utensils, other small articles which may be in a household.

Making reference then to Figure 2 it can be seen that a side (102) of the slipper (100) may be adapted with one or more ventilation holes (141). A typical household slipper will not include the substantial level of protection and covering afforded by the present invention. Accordingly, the slipper (100) taught in the present invention may not permit the foot as much ventilation and air as may be the case with cloth, open, or other thin material slippers. Accordingly, the ventilation holes (141) may be provided for this purpose. Of course, the ventilation holes may as easily be eliminated and should not be considered either a necessary feature or innovation of the present invention.

Making reference then to Figure 3 it is apparent that the appearance of the present slipper (100) is very similar to that of a common household slipper. Also apparent from Figure 3, as previously mentioned, is the enlarged sole (150) that may include a protruding width (151) about the entire circumference (108) of the slipper

(100). Such sole (150) will both avoid and cushion the shock of collisions between the foot and small objects, such as the leg of a table, of a chair, or couch, or a doorstep, door sill, or door jam (not depicted).

Figure 4 depicts the slipper (100) as viewed from the front. The slipper (100) is seen to be very similar to standard household slippers with the exception that the front side (101) and front shell portion (107) may be more upright because of the protective material within the shell (not depicted in Figure 4).

Figure 5 depicts a top view of the slipper. It can be seen that the opening at the top (108) is sufficient for a foot to slide easily within and back out of the slipper shell (109).

Figure 6 depicts a rearview of the slipper (100) which also demonstrates the existence of a more upright and rigid side or the slipper shell (109).

It should now be apparent that the present invention comprises two innovations over previous foot slippers. Each should be seen to comprise a clear and distinct improvement over prior art.

The first innovation includes a more substantial and enlarged sole (150). This sole (150) may be made of a variety of materials, including but not limited to rubber, vinyl, plastic, or a hybrid of these. Additionally, as depicted in Figure 9, the sole could be made with a series of air pockets (153) within the sole material, which may provide both shaping and cushioning protection. No specific material formulation

is required as long as the sole is afforded the adequate strength, although lighter weight and materials with some pliability are preferred. This sole (150) should, ideally, be lightweight and sufficiently flexible to allow walking and movement easily. At the same time, the sole (150) must be of sufficient strength to guard  
5 against two principle kinds of hazards.

First, it must be strong enough to absorb and deflect from stubbing or lateral contact with objects along the floor which may be inadvertently kicked or stubbed. In addition to providing a sole of a more substantial construction, the sole is enlarged to protrude out from the shell of the slipper, much in the manner of a  
10 bumper.

Second, the sole may have a sufficient width and substance to cushion and absorb the event of stepping upon common household hazards, such as small bits of broken glass, bottle caps, silverware or eating utensils, and the like. There are a variety of materials, such as those described above, which are lightweight and  
15 possess

The second principle distinction is in the construction of the slipper shell (109). Whereas most house slippers are of a single-layered shell of a soft and pliable fabric, the present invention comprises layers (135, 136, 137), each of which achieve a distinct purpose.

20 The inner layer (135) may be comprised of a foam or gel. Its purpose is to

afford comfort to the foot and some measure of snug fit and cushioning. This could also be accomplished with a soft leather or a thickened cloth or velour. Any material of sufficient strength and pliability would be acceptable for this purpose.

5           A middle layer (136) may be of a semi-rigid plastic. Its purpose is to protect the top and sides of the foot from inadvertent kicking contact, or from small objects which may be dropped upon the foot or toes, such as beverage or food cans, plates, dishes, or cups, tools, or eating utensils.

10           The outer layer (137) may be any covering fabric. This could be a cloth, leather, or vinyl or any suitable cover. It may be further adapted with decorative features (138). It allows for any style of display or color combination within the imagination.

          Figure 7 depicts a side (102) of the slipper with the ventilation holes (141). Figure 7 also depicts the opening for the foot (164) as well as the slightly gripping  
15       backside member (165) of the slipper. Of course, such gripping backside member (165) is not a necessary feature of the present invention but a convenience which may, in some cases, enhance the comfort and convenience of the use of the slipper.

          Figure 8 depicts a cross-section of the middle layer (136) of the protective shell (163). The air pockets may be seen within such layer. Such air pockets are  
20       depicted for the purpose of showing an alternative material only. Other materials